

### **REMARKS**

These remarks and the accompanying amendments are responsive to the Office Action dated November 29, 2006 (hereinafter referred to as the "Office Action"). At the time of the last examination, Claims 6-24 were pending. Claims 17-24, which are withdrawn from consideration as per a previous election, have been cancelled herein. Claims 7 and 12 were cancelled in a supplemental amendment dated January 30, 2007. Accordingly, upon entry of the amendments made herein Claims 6, 8-11 and 13-16 will be pending.

The Office Action rejected all of the pending claims under 35 U.S.C. 112, first paragraph by stating that the claims do not comply with the written description requirement, i.e. the claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner specifically states as follows:

"The specification fails to originally support and inadequately describe the claimed method steps as stated in new claims 6-16. Applicants have failed specifically support for each new step and the examiner cannot find support in the specification for new claimed subject matter."

However, the Office Action did not state that which particular subject matters (steps) of the claims are not described in the specification and the drawings. In order to assist the Examiner in finding example concordance between the pending claims and the specification and drawings, all of the pending claims are provided below. Element numbers and paragraph numbers are inserted to show which item in the specification and what paragraphs may be

considered as an example of the corresponding element recited in the claims. Accordingly, reconsideration and withdrawn of the 35 U.S.C. 112, first paragraph, is respectfully requested. In providing the following claim concordance, the Applicants' are not limiting the scope of the claims, but are merely showing examples of elements that fall within the definition of the corresponding claimed element.

The claim concordance is provided as follows:

Claim 6. (Previously Presented) A diversity handover control method in a mobile communication system including a mobile station (20, 22), a plurality of base stations (10, 12, 14, 16, 18), and a center (30, 32, 34) connected to said plurality of base stations, said mobile communication system carrying out diversity handover in which said mobile station communicates with said plurality of base stations simultaneously, said diversity handover control method comprising the steps of: (the preamble is more generally supported by Figure 1)

monitoring, at said mobile station, radio condition quality corresponding to a plurality of branches; (the steps of monitoring, selecting, and arranging, are supported by Figure 7 (S10, S40 and S80), by Figure 12 (501, 505) and in paragraphs 0075 and 0077)

selecting, at said mobile station, one or more addition branch candidates based on the monitored radio condition quality;

arranging, at said mobile station, said addition branch candidates in order of the monitored radio condition quality;

notifying, from said mobile station to said center, information on said plurality of branches including said addition branch candidates, said addition branch candidates being

notified in the arranged order; and (the step of notifying is supported by Figure 7 (S50, S90), Figure 10 (S100), Figure 12 (510) and in paragraphs 0075 and 0077)

trying, at said center, to establish one or more communicating branches for the diversity handover by using said notified addition branch candidates in the arranged order. (the step of trying is supported by Figure 10 (S130, S140, S150), and Figure 12 (610, 615, 620, 705))

Claim 8. (Previously Presented) A diversity handover control method as claimed in claim 6, further comprising the steps of:

selecting, at said mobile station, one or more deletion branch candidates based on the monitored radio condition quality; (the step of selecting is supported by Figure 7 (S10) and Figure 12 (501))

notifying, from said mobile station to said center, information on a plurality of branches including said one or more deletion branch candidates; and (the step of notifying is supported by Figure 7 (S50, S90), Figure 10 (S100), and Figure 12 (510))

deleting, at said center, one or more communicating branches which are being used for the diversity handover by using said notified deletion branch candidates, (the step of deleting is supported by Figure 10 (S110) and Figure 12 (565))

wherein each of said plurality of branches comprises a radio branch (arrow between 10 and 20, etc.) between said mobile station and one of said base stations, and a cable branch (arrow between 10 and 30, etc.) between one of said base stations and said center, and (this wherein clause is more generally supported by Figure 1 and the corresponding description)

when a communicating branch is deleted, a cable branch of the communicating branch is deleted after a radio branch of the communicating branch is deleted. (this wherein clause is

supported by the "Deletion DHO" and "Addition deletion DHO" of Figure 2 and Figure 12 (730, 785)

Claim 9. (Previously Presented) A diversity handover control method as claimed in claim 6, wherein

said plurality of branches include one or more communicating branches,

each of said plurality of branches comprises a radio branch (arrow between 10 and 20, etc.) between said mobile station and one of said base stations, and a cable branch (arrow between 10 and 30, etc.) between one of said base stations and said center, and (these first two elements are more generally supported by Figure 1)

when the sum of the number of communicating branches and the number of addition branch candidates exceeds the maximum number of radio branches which can be established simultaneously, said center tries to establish one or more communicating branches for the diversity handover by using said notified addition branch candidates in the arranged order, up to the maximum number of cable branches which said center can process simultaneously. (this final element is supported by Figure 10 (S140, S150) and Figure 12 (610, 615, 620, 705)

Claim 10. (Previously Presented) A diversity handover control method as claimed in claim 9, wherein

said plurality of branches include one or more deletion branch candidates,

said diversity handover control method comprises the step of deleting, at said center, one or more communicating branches which are being used for the diversity handover and

correspond to said deletion branch candidates, and (these first two elements are supported by Figure 7 (S10, S50, S90), Figure 10 (S100, S110) and Figure 12 (501, 510, 565))

when the sum of the number of communicating branches not including said deleted communicating branches and the number of addition branch candidates exceeds the maximum number of radio branches which can be established simultaneously, said center tries to establish one or more communicating branches for the diversity handover by using said notified addition branch candidates in the arranged order, up to the maximum number of cable branches which said center can process simultaneously. (this final element is supported by Figure 10 (S140, S150) and Figure 12 (610, 615, 620, 705))

Claim 11. (Previously Presented) A diversity handover control method in a mobile communication system including a mobile station (20, 22), a plurality of base stations (10, 12, 14, 16, 18), and a center (30, 32, 34) connected to said plurality of base stations, said mobile communication system carrying out diversity handover in which said mobile station communicates with said plurality of base stations simultaneously, said diversity handover control method comprising the steps of: (the preamble is more generally supported by Figure 1)

monitoring, at said mobile station, radio condition quality corresponding to a plurality of branches; (the steps of monitoring, selecting, and obtaining, are supported by Figure 7 (S10, S40 and S80), by Figure 12 (501, 505) and in paragraphs 0075 and 0077)

selecting, at said mobile station, one or more addition branch candidates based on the monitored radio condition quality;

obtaining, at said mobile station, a relative value of each of said addition branch candidates indicative of order of precedence to be used for the diversity handover based on the monitored radio condition quality of said addition branch candidates;

notifying, from said mobile station to said center, information on said plurality of branches including said addition branch candidates and their relative values; and (the step of notifying is supported by Figure 7 (S50, S90), Figure 10 (S100), Figure 12 (510) and in paragraphs 0075 and 0077)

trying, at said center, to establish one or more communicating branches for the diversity handover by using said notified addition branch candidates in the order indicated by their relative values. (the step of trying is supported by Figure 10 (S130, S140, S150), and Figure 12 (610, 615, 620, 705))

Claim 13. (Previously Presented) A diversity handover control method as claimed in claim 11, further comprising the steps of:

selecting, at said mobile station, one or more deletion branch candidates based on the monitored radio condition quality; (the step of selecting is supported by Figure 7 (S10) and Figure 12 (501))

notifying, from said mobile station to said center, information on a plurality of branches including said one or more deletion branch candidates; and (the step of notifying is supported by Figure 7 (S50, S90), Figure 10 (S100), and Figure 12 (510))

deleting, at said center, one or more communicating branches which are being used for the diversity handover by using said notified deletion branch candidates, (the step of deleting is supported by Figure 10 (S110) and Figure 12 (565))

wherein each of said plurality of branches comprises a radio branch (arrow between 10 and 20, etc.) between said mobile station and one of said base stations, and a cable branch (arrow between 10 and 30, etc.) between one of said base stations and said center, and (this wherein clause is more generally supported by Figure 1 and the corresponding description)

when a communicating branch is deleted, a cable branch of the communicating branch is deleted after a radio branch of the communicating branch is deleted. (this wherein clause is supported by the "Deletion DHO" and "Addition deletion DHO" of Figure 2 and Figure 12 (730, 785))

Claim 14. (Previously Presented) A diversity handover control method as claimed in claim 11, wherein

said plurality of branches include one or more communicating branches,

each of said plurality of branches comprises a radio branch (arrow between 10 and 20, etc.) between said mobile station and one of said base stations, and a cable branch (arrow between 10 and 30, etc.) between one of said base stations and said center, and (these first two elements are more generally supported by Figure 1)

when the sum of the number of communicating branches and the number of addition branch candidates exceeds the maximum number of radio branches which can be established simultaneously, said center tries to establish one or more communicating branches for the diversity handover by using said notified addition branch candidates in the order indicated by their relative values, up to the maximum number of cable branches which said center can process simultaneously. (this final element is supported by Figure 10 (S140, S150) and Figure 12 (610, 615, 620, 705))

Claim 15. (Previously Presented) A diversity handover control method as claimed in claim 14, wherein

said plurality of branches include one or more deletion branch candidates,

said diversity handover control method comprises the step of deleting, at said center, one or more communicating branches which are being used for the diversity handover and correspond to said deletion branch candidates, and (these first two elements are supported by Figure 7 (S10, S50, S90), Figure 10 (S100, S110) and Figure 12 (501, 510, 565))

when the sum of the number of communicating branches not including said deleted communicating branches and the number of addition branch candidates exceeds the maximum number of radio branches which can be established simultaneously, said center tries to establish one or more communicating branches for the diversity handover by using said notified addition branch candidates in the order indicated by their relative values, up to the maximum number of cable branches which said center can process simultaneously. (this final element is supported by Figure 10 (S140, S150) and Figure 12 (610, 615, 620, 705))

Claim 16. (Previously Presented) A diversity handover control method as claimed in claim 11, further comprising the steps of: (this claim is supported by Figure 14 and paragraph 0126 through 0129 and in paragraph 0131)

storing, at said center, one or more notified addition branch candidates which are not established in said try to establish the communicating branches for the diversity handover;

selecting, at said mobile station, one or more deletion branch candidates based on the monitored radio condition quality;



Thus, the Applicants' respectfully submit that every element of the claims is shown in the drawings, and the drawings convey the claimed elements with reasonable clarity to those of ordinary skill in the art. Thus, it can be said that every element of the claims is supported by the drawings and the corresponding description in the specification.

Therefore, the Applicants respectfully argue that all of the pending claims 6, 8-11 and 13-16 comply with the written description requirement, i.e. the claims do not contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 26<sup>th</sup> day of February, 2007.

Respectfully submitted,

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